

NextFrontiers

# Medical Testing At Home

They're no substitute for regular doctor visits, but store-bought kits to measure things like allergies and HIV can make it easier to get a diagnosis and encourage more frequent checks

BY MARY CARMICHAEL

**G**ETTING A MEDICAL SELF-DIAGNOSIS AT HOME isn't exactly new—it began with the scale in ancient Egypt. But these days, you can check a lot more than your weight. Devices on the market and in the pipeline allow patients to monitor their cholesterol and glucose levels, find out if they have allergies and even test for serious diseases like hepatitis C and HIV. The explosion in home diagnostics has many doctors worried that patients will substitute self-testing for office-based medical care. That's not what the tests are for—they're intended to supplement, not replace, a doctor visit—and so far, the FDA has been loath to approve many self-test kits for that reason. But the tests that have made it to market keep getting better.

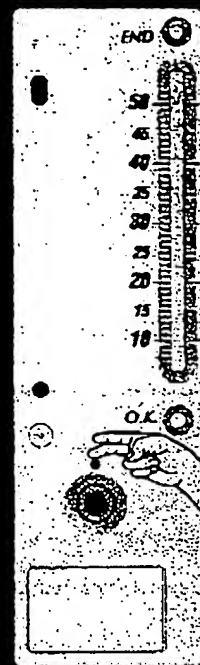
## HIV

Even with HIV drugs keeping the symptoms of AIDS at bay, an HIV-positive diagnosis is devastating—and more so when it's given without proper medical and psychological counseling. So when scientists first floated the idea of a home test for HIV, doctors cringed. Today the FDA has approved two home-kit brands, largely because of guarantees that positive patients will receive counseling upon diagnosis. There's pretest counseling, too. The kits are easy to use. Home Access Health offers seven-day and three-day versions; all they require is a finger prick to collect blood, which is then sent to the lab for analysis. The kits' biggest

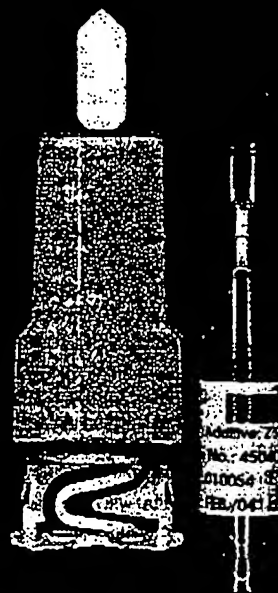
advantage? Specimens are identified by numbers, not names, so patients keep their privacy. OraSure sells an even simpler one, OraQuick, that measures antibodies in mucus from the cheeks and gums. It may be slightly less accurate than blood-based tests, which OraSure also offers—and as of now, it's available only in doctors' offices. Other tests abound but are not FDA-approved. Many are sold on the Internet, so buyer beware.

## HEPATITIS C

More than 4 million Americans are infected with hepatitis C. Most of them don't know they have the disease. The Home Access Hepatitis C test could help



CHOLESTEROL TEST  
BY HOME ACCESS HEALTH



ALLERGY TEST  
BY IMMUNETECH

## NextFrontiers

## BEST AVAILABLE COPY



HIV-1 TEST SYSTEM BY  
HOME ACCESS HEALTH

many of them find out without having to schedule a doctor visit. Hepatitis C, like HIV, is a serious diagnosis. And so, like HIV, its tests are only partially home-based: The only FDA-approved hep C test is made by Home Access; like the company's HIV test, it's anonymous and fast, and is carried out by lab technicians after blood samples are mailed in. At \$50, it's also inexpensive—and it guarantees counseling for those who receive a positive diagnosis. "These are high-anxiety tests," says Richard Quattrocchi, president of Home Access. "But so many people don't find out at all. With these they can find out early when there's still time to do something about it."

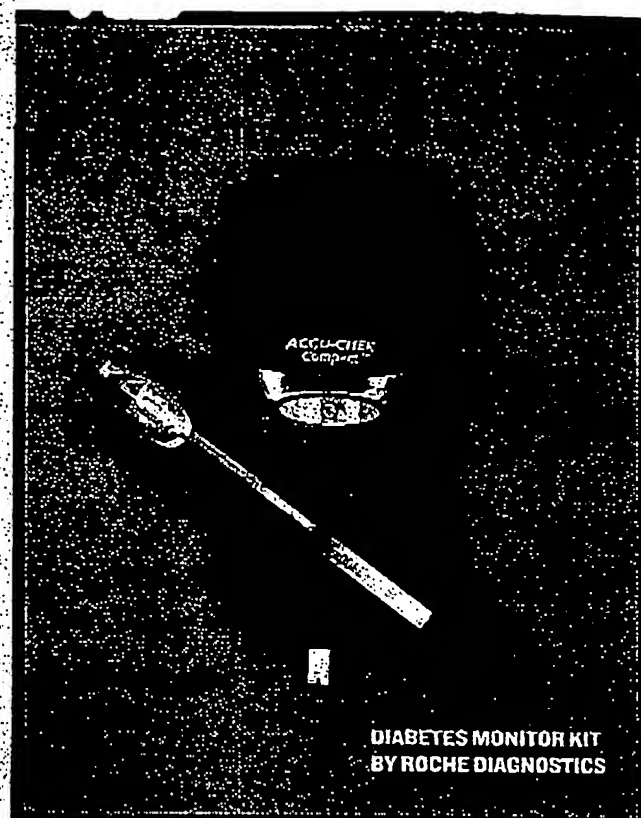
#### GLUCOSE LEVELS

Glucose monitors are one of the oldest types of home tests, and with \$2.2 billion of the \$2.6 billion industry, easily the most common. The latest systems use the same technology as ever—patients take a drop of blood with a lancet and place it on a test strip, which then goes into the monitor to be measured—but come with extra bells and whistles. Seniors will appreciate

Roche's new "drum" version, which comes equipped with a reusable cartridge of 17 strips that slides easily into the monitor. (Inserting the strips individually into the monitor can be tricky for those with unsteady hands.)

#### CHOLESTEROL

Got 15 minutes? That's all you need to check your cholesterol at home. Some tests use color matches, others indicate levels on a "thermometer"—and all are quick, cheap and easy to use. They all, however, happen to have one setback: none can measure HDL, LDL and triglycerides separately. That can actually have benefits—tests that measure cholesterol in bulk don't require fasting, like the ones performed in doctors' offices. But full lipid profiling is on the way. Home Access is working on a test that will measure different kinds of cholesterol. "If your total cholesterol is going down, the component's parts are presumably going down, too," says Quattrocchi, noting that current tests are still effective for patients on statins who want to track their cholesterol level more than once a year when they visit the



DIABETES MONITOR KIT  
BY ROCHE DIAGNOSTICS

doctor. "A lot of people need positive reinforcement between doctor's visits. These tests can help with that." There's one more advantage to the Home Access test—unlike the others, it's cheap and easy to find at RiteAid and Kmart.

#### ALLERGIES

Are those sniffles just signs of a cold, or do you have allergies? Short of a trip to the doctor's office, there's been no way to tell until recently. Home Access's test, cleared by the FDA, can now determine whether you're allergic to any of the 10 most common triggers: dust mites, cat hair, mold, ragweed, mountain cedar, Timothy grass, Bermuda grass, egg white, milk or wheat. There are also tests for your home itself—instead of your blood, you collect your dust bunnies and send them in to see if they contain any common allergens. Sweeping your floor afterward is up to you. The My Allergy Test is not meant to replace a doctor's test since it screens for 10 allergens only; however, it can help people who buy over-the-counter allergy medications who may not have gone to the doctor to make sure they need them. They may find out that they

actually have asthma or upper-respiratory-tract infections—not allergies.

#### OVLATION

A woman's fertility drops off rapidly with age, but more and more Americans are putting off having children until well into their 30s. To maximize the chance of conception, it's essential to know the time of ovulation, which typically occurs around the middle of a woman's menstrual cycle, although it can vary widely. Ovulation is accompanied by hormonal changes that show up in urine, and home urine-test kits have been available for some time. Now a number of products, sold under names including OvuLook, OvuLite and Maybe Mom, claim to provide the same information from a drop of saliva. The kits, which range in price from about \$60 to \$100, all work the same way: you put a drop of saliva on a slide, wait for it to dry and then examine it under a magnifier for the telltale "ferming" patterns that indicate fertility. But the slides can be hard to interpret, and the results may not be as clear-cut as with a urine test-strip. The advantage: it's a lot neater.